



Final Product/Process Change Notification
 Document #:FPCN24191X
 Issue Date:13 Oct 2021

Title of Change:	Release WLCSP manufacturing flow for ASEKH for bump and backside wafer processing and onsemi Cebu for test and final assembly.
Proposed First Ship date:	20 Jan 2022 or earlier if approved by customer
Contact Information:	Contact your local onsemi Sales Office or Jeremy.Ferris@onsemi.com
PCN Samples Contact:	Contact your local onsemi Sales Office or < PCN.samples@onsemi.com >. Sample requests are to be submitted no later than 30 days from the date of first notification, Initial PCN or Final PCN, for this change. Samples delivery timing will be subject to request date, sample quantity and special customer packing/label requirements.
Additional Reliability Data:	Contact your local onsemi Sales Office or Rob.Travis@onsemi.com
Type of Notification:	This is a Final Product/Process Change Notification (FPCN) sent to customers. FPCNs are issued 90 days prior to implementation of the change. onsemi will consider this change accepted, unless an inquiry is made in writing within 30 days of delivery of this notice. To do so, contact PCN.Support@onsemi.com
Marking of Parts/ Traceability of Change:	The change will be reflected in the new assembly site code on the device top mark.
Change Category:	Assembly Change, Test Change
Change Sub-Category(s):	Material Change, Manufacturing Site Addition

Sites Affected:

onsemi Sites	External Foundry/Subcon Sites
onsemi Cebu, Philippines	ASEKH, Taiwan (Kaohsiung)

Description and Purpose:

The addition of another qualified manufacturing flow will add capacity and manufacturing flexibility for WLCSP products.

	Before Change Description	After Change Description
WLCSP bump, wafer backside processing	onsemi Niigata, Japan	onsemi Niigata, Japan ASE Kaohsiung, Taiwan
Backside Coating	onsemi Niigata: ADWILL LC2850 (LINTEC)	onsemi Niigata: ADWILL LC2850 (LINTEC) ASE Kaohsiung, Taiwan: ADWILL LC2821 (LINTEC)
Under Bump Metal (UBM)	onsemi Niigata, Japan: Ni/Au	onsemi Niigata, Japan: Ni/Au ASE Kaohsiung, Taiwan: Cu
Final Test and Assembly Site	onsemi Seremban, Malaysia	onsemi Seremban, Malaysia onsemi, Cebu Philippines

The Assembly site code will change on the product top mark as a result of this change.

	From	To
Top mark assembly site code	onsemi Seremban: R	onsemi Seremban: R onsemi Cebu: D



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Reliability Data Summary:

QV DEVICE NAME: FAN53740UCA1X

RMS#: W42929 W42931 W49933 W49954

PACKAGE: WLCSP

Test	Specification	Condition	Interval	Results
HTOL	JESD22-A108	Ta=125°C, 100 % max rated Vcc	1008 hrs	0/231
HTSL	JESD22-A103	Ta= 150°C	1008 hrs	0/231
TC	JESD22-A104	Ta= -40°C to +125°C	850 cyc	0/231
HAST	JESD22-A110	130°C, 85% RH, 18.8psig, bias	96 hrs	0/231
uHAST	JESD22-A118	130°C, 85% RH, 18.8psig, unbiased	96 hrs	0/231
PC	J-STD-020, JESD-A113	MSL 1 @ 260 °C	3X -reflow	

QV1 DEVICE NAME : FSA646UCX

iREL : F20160820

PACKAGE : WLCSP36

Test	Specification	Condition	Interval	Results
HTOL	JESD22-A108	Ta=125°C, 100 % max rated Vcc	1008 hrs	0/231
HTSL	JESD22-A103	Ta= 150°C	1008 hrs	0/231
TC	JESD22-A104	Ta= -40°C to +125°C	850 cyc	0/231
HAST	JESD22-A110	130°C, 85% RH, 18.8psig, bias	96 hrs	0/231
uHAST	JESD22-A118	130°C, 85% RH, 18.8psig, unbiased	96 hrs	0/231
PC	J-STD-020, JESD-A113	MSL 1 @ 260 °C	3X -reflow	

Electrical Characteristics Summary:

Electrical characteristics are not impacted.

List of Affected Parts:

Note: Only the standard (off the shelf) part numbers are listed in the parts list. Any custom parts affected by this PCN are shown in the customer specific PCN addendum in the PCN email notification, or on the [PCN Customized Portal](#).

Part Number	Qualification Vehicle
FAN54120UC425X	FAN53740UCA1X
FAN54120UC435X	FAN53740UCA1X
FAN48610BUC50X	FSA646UCX
FAN48610UC50X	FSA646UCX
FAN48611UC53X	FSA646UCX
FAN53611AUC123X	FSA646UCX
FAN53611AUC115X	FSA646UCX
FAN53526UC89X	FSA646UCX
FAN54120UC420X	FAN53740UCA1X

Appendix A: Changed Products

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Product	Customer Part Number	Qualification Vehicle	New Part Number	Replacement Supplier
FAN48610BUC50X		FSA646UCX		
FAN48610UC50X		FSA646UCX		
FAN53526UC89X		FSA646UCX		